

Remarks

Reconsideration of the above-identified patent application in view of the remarks following is respectfully requested.

Claims 21-48 are currently pending in this application. Claims 21-48 have been rejected under 35 USC § 103(a). Independent claims 21, 35, and 42 have been amended.

The claims before the Examiner are directed toward a data access engine, computerized system, and method for increasing a level of efficiency of a network server. A data access engine located in first data processing machine is capable of communication with at least one pseudo server located in a second data processing machine (for example, a LAN server). The physical separation between data access engine and the server logic and user interface of pseudo server is a distinguishing characteristic of the invention. Any request for a subset of data stored in data access engine must be routed through at least one pseudo server.

§ 103(a) Rejections

The Examiner has rejected claims 21, 22, 26-29, and 33-34 under §103(a) as being unpatentable over Vermeulen US 2001/0042171 A1 in view of Tanabe et al US 2003/0195932. The Examiner's rejection is respectfully traversed.

The separation of code in the present invention between the data access engine 22 and the pseudo server 28, and in particular the inclusion of server logic and user interface on the pseudo server 28 is a distinguishing characteristic of the current invention, as recited at least on page 6 lines 25-26 "The physical separation between data access engine 22 and the server logic and interface of pseudo server 28 is a distinguishing characteristic of the invention." The Examiner is referred to the

previous response, dated 14-October-2011 (pages 11-13) where Applicant demonstrated that the innovative architecture of the present invention differs from the prior art architecture of Vermeulen. In brief, the capabilities of a prior art server (0 in FIGURE 1 of the current application) of Vermeulen (Vermeulen's 14) include server logic and interface and data access engine capabilities (3 and 5 of FIGURE 1 of the current application). In contrast, the architecture of the current invention is partitioned into a data access engine 22 (prior art 5), responsible only for data storage and retrieval, and a pseudo server such as pseudo server 28. Pseudo server 28 handles file serving (via server logic module) (Vermeulen's proxy server 12) and the other functions of the prior art server (0) (3 of FIGURE 1 of the current application).

The architecture of Tanabe parallels the prior art architecture of Vermeulen and is similar to the prior art discussed in the background of the current application in reference to Figure 1. In particular, the SBC server (Tanabe's 3) is represented by prior art server (0 in FIGURE 1 of the current application). The SBC server includes SBC middleware (Tanabe's 2) and applications (Tanabe's 1). SBC middleware is an interface between user's (Tanabe's clients, shown as 6 and 106) and applications, as described in Tanabe [0008]:

"The SBC middleware 2 supplies the input ... received from (106)... to the application 1...The application ... provides the update...to the SBC middleware 2...the SBC middleware2 transmits ... to the SBC client 106."

The SBC middleware (Tanabe's 2) and applications (Tanabe's 1) are thus respectively parallel to server logic and interface and data access engine (respectively 3 and 5 of prior art server 0 in FIGURE 1 of the current application).

Referring to the Examiner's argument on page 4 of the current office action, within the context of the above architecture discussion, Tanabe's proxy server executing an application (Tanabe's 1) on an SBC server to provide a user interface is

an example of the limitations of the prior art which include increased server complexity and expose conventional architectures to security vulnerabilities. In other words, Tanabe does add nor change the architecture of Vermeulen, only using a proxy server (Tanabe's 10) to execute an application (Tanabe's 1) on the SBC server (Tanabe's 3), as the Examiner states on page 4 of the current office action: "...which has been produced by the SBC server 3 as the result of the execution of application 1, ...".

In contrast, the architecture of the present invention separates code between a pseudo-server (specifically including user interfaces and server logic) and data access engine. This separation of code provides improved security and performance over conventional systems. The architecture of the current invention is recited in claim 21:

a data-access engine residing in a server memory of server-side data-processing machine, ... pseudo server residing in a secondary memory of a secondary data-processing machine ... pseudo server includes a server-logic module ... and ... a user interface (UI)

In order for independent claim 21 to be unpatentable over Vermeulen in view of Tanabe, these references must teach or suggest every recited limitation. As the Board of Patent Appeal and Interferences has confirmed in *In re Wada and Murphy*, Appeal 2007-3733:

When determining whether a claim is obvious, an examiner must make "a searching comparison of the claimed invention – including all its limitations – within the teaching of the prior art". *In re Orchiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (emphasis added). Thus, "Obviousness requires a suggestion of all limitations in a claim." *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (citing *In re Royka*, 490 F.2d 981, 985 (CCPA 1974)).

The Examiner has rejected claims 35-36 and 40-41 under §103(a) as being unpatentable over Vermeulen in view of US 2002/0099957 A1 Kramer et al (hereafter Kramer) in view of Tanabe. The Examiner's rejection is respectfully traversed.

Kramer teaches prior art use of a firewall, as described by the Examiner on page 14 of the current office action with reference to Kramer [0041]. Conventional use of a firewall is a preferred option of the current invention, as described at least on page 7 lines 23-27:

Optionally, but preferably, communication between data access engine 22 and pseudo server 28 occurs across a content filtering device 25 (e.g. firewall 24) deployed between data access engine 22 and pseudo server 28. Device 25 serves to protect pseudo server 28 from unauthorized requests and or attempts at data manipulation (i.e. "hacking" activity).

Kramer's client 313 and proxy server 312 are respectively parallel to the client-side data-processing machine and secondary data-processing machine of the current invention (see FIGURE 2, client is not shown, secondary data-processing machine 27). Kramer's firewall 311 is parallel to the optional firewall 25(24) of the current invention. In contrast to denying outgoing requests at Kramer's firewall, the current invention includes the feature of denying data requests by the data-access engine (22 of the current application), as recited at least in claim 35:

... data requests from said client-side data-processing machine for data stored in said data-access engine ...

(b) denying by said data-access engine said data requests...

In order to expedite the prosecution, Applicant has chosen to amend independent claim 35 in order to clarify and emphasize the distinctions between the device of the current invention and the prior art. Specifically, claim 35 has been amended to recite that denying of data requests is done by the data-access engine. Support can be found at least on page 8 lines 16 and 19-20 "Requests are

implemented by data access engine 22.” “According to method 40 a request is honored 50 if it is routed through a pseudo server 28 and denied 52 if it is not routed through the pseudo server.”

The architecture of Vermeulen and Tanabe has been addressed above, and in order for claim 35 to be unpatentable over Vermeulen in view of Kramer in view of Tanabe, these references must teach or suggest every recited limitation. As the Board of Patent Appeal and Interferences has confirmed in *In re Wada and Murphy*, Appeal 2007-3733:

When determining whether a claim is obvious, an examiner must make “a searching comparison of the claimed invention – including all its limitations – within the teaching of the prior art”. *In re Orchiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (emphasis added). Thus, “Obviousness requires a suggestion of all limitations in a claim.” *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (citing *In re Royka*, 490 F.2d 981, 985 (CCPA 1974)).

The Examiner has rejected claims 42-43 and 47-48 under §103(a) as being unpatentable over Vermeulen in view of US 2003/0084159 A1 to Blewett, and in further view of Tanabe. The Examiner’s rejection is respectfully traversed.

Blewett teaches a device called a “pseudo proxy server” which is clearly described as a traditional computer server “The pseudo proxy server 120 is a traditional computer server” (see Blewett [0013]). Under normal network conditions, content servers 112-118 respond to connection requests from client terminals 130 [0011]. When the arrival rate of customer requests exceeds a predetermined threshold, pseudo proxy server 120 is recruited as an additional content server [0015]. While a pseudo proxy server 120 is recruited, “The client terminal 130 will direct its connection request to the pseudo proxy server 120 rather than a content server of the host network...” [0018]. Referring to the Examiner’s argument on page 24 of the current office action, Blewett [0036] teaches a proxy server that is setup (similarly to

the setup of content servers **112-118**) to communicate with the known communication protocols that may be defined for the client terminal **130**. In other words, the multiple communication protocols of Blewett's pseudo proxy server **120** are between the pseudo proxy server **120** and the client terminal **130**.

In contrast, the pseudo server of the current application can use multiple communications protocols between more than one other device, specifically a first set of communications protocols with a client and a second set of communications protocols with a data access engine. This distinguishing feature of the current invention is recited in current claim 35:

... at least one pseudo server includes a server-logic module for fulfilling data requests via a first set of at least one communications protocols originating from a client memory of a client-side data-processing machine, ... wherein the at least one pseudo server communicates with the data access engine via a second set of at least one communications protocols, ... (emphasis added)

The architecture of Vermeulen and Tanabe has been addressed above, and in order for claim 35 to be unpatentable over Vermeulen in view of Blewett in view of Tanabe, these references must teach or suggest every recited limitation. As the Board of Patent Appeal and Interferences has confirmed in *In re Wada and Murphy*, Appeal 2007-3733:


When determining whether a claim is obvious, an examiner must make "a searching comparison of the claimed invention – including all its limitations – within the teaching of the prior art". *In re Orchiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (emphasis added). Thus, "Obviousness requires a suggestion of all limitations in a claim." *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (citing *In re Royka*, 490 F.2d 981, 985 (CCPA 1974)).

In order to expedite the prosecution, Applicant has chosen to amend independent claims 21 and 42 in order to clarify and emphasize the distinctions between the device of the current invention and the prior art. In addition, these

amendments address the Examiner's response to argument (B) regarding the recitation of "a server-side data-processing machine for securely and efficiently fulfilling network requests" occurring in the preamble. Specifically, claims 21 and 42 have been amended to include the server-side data-processing machine and the secondary data-processing machine in the body of the claim.

In view of the above amendments and remarks it is respectfully submitted that independent claims 21, 28, 35, and 42, and hence dependent claims 22-27, 29-34, 36-41, and 43-48 are in condition for allowance. Prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,



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